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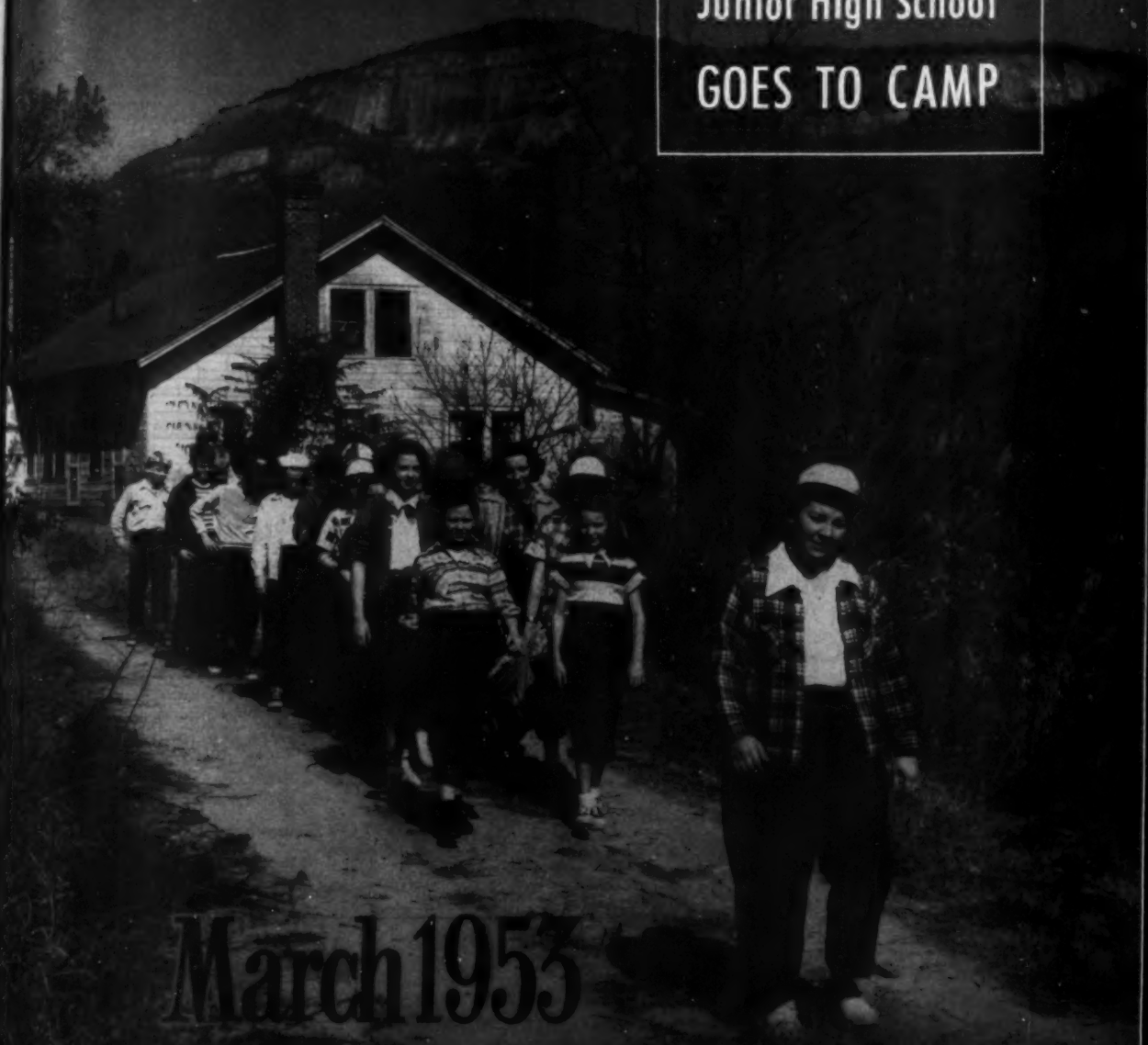
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GENERAL INFORMATION

Junior High School GOES TO CAMP



March 1953

SOIL CONSERVATION

OFFICIAL ORGAN OF THE SOIL CONSERVATION SERVICE

SOIL CONSERVATION

EZRA TAFT BENSON
SECRETARY OF AGRICULTURE

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CHIEF, SOIL CONSERVATION SERVICE

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★ THIS MONTH ★

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WELLINGTON BRINK
Editor

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CLOVER BOWL.—When the Geneva, Ala., Lions Club was looking for a name for their football bowl used for an annual game to raise funds for *sight conservation*, they picked "The Clover Bowl."

Clover has become popular in Geneva County as a result of its widespread use in farm conservation in the Wiregrass Soil Conservation District, SCS Work Unit Conservationist J. K. Howard reports.

Two outstanding Negro high school football teams vie for the area championship in an annual football game. The contest is preceded by a parade through town led by bands from the Alabama State College for Negroes and from nearby Camp Rucker. A special feature is a beauty contest, with entries from all nearby Negro schools, followed by the crowning of the "Clover Queen." A sign at the town entrance reads, "Welcome to Geneva, the home of the Clover Bowl;" it was erected by the Lions Club and the Geneva County Cattlemen's Association.

The event itself serves to encourage sight conservation, soil conservation, and good race relationships.



FRONT COVER.—Starting on a hike, led by Elizabeth Ellison, director of camping education, are these pupils of the seventh grade of the Greenville, S. C., Junior High School. Elsewhere in this issue is an article which tells of the unique method of teaching conservation at Camp Oolenoy, near Table Rock State Park. The photographer is Leon J. Siak.

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Three Remarkable Years

The dramatic story of what happened in a Pennsylvania County when all major forces teamed together in spirited support of a soil conservation district

By HUGH F. EAMES

NEARLY all farm people in Columbia County, Pa., and many others, saw the need for more emphasis on soil conservation when young farmers, just making their start on the land, asked for the organization of a soil conservation district. A long-established and successful dairy farmer, moving into his sixties, backed them up with the statement: "I need it, we need it, and the county needs it."

The three county commissioners, acting under the state law, recognized the need, the weight of public opinion, and the young farmers' requests, when in January, 1949 they officially declared: "Columbia County is a soil conservation district."

Before the district was formally organized in September of the same year, nearly one hundred farmers, representing more than a tenth of the



Contour strip cropping like this corn and hay on the Frank Kisner farm is an increasingly conspicuous trademark of the district's work in Columbia County. Before the strips, says Kisner, heavy rains resulted in streams of run-off deep enough to float a boat between house and barn. There's been nothing like that since the strips were installed. Conservation projects were important in winning the FFA American Farmer award for his son Paul in 1952.

county's farm land, backed up official action by requesting assistance from the district.

A governing body of four active farmers, and one county commissioner with business-executive experience, was named by the county commissioners, and almost everybody pitched in to help make the new organization click. Some who had been passive, or actively opposed, became good cooperators.



Air view of Northumberland County's Stone Valley, powerful silent salesman of soil conservation districts.



Harry Everett, vo-ag supervisor in Columbia and Montour Counties.

Now, after 3 years of work, nearly four hundred farmers, almost half of the full-time farmers in the county, are benefiting from the district program.

"Need for a district' is something that folks here don't talk about any more," County Commissioner Grant Miller observes. "What they are now saying," he declares, "is: 'Why didn't we get it before?' I think it is the best thing that ever happened in Columbia County agriculture and I wish it had been started when I was farming. Last year I went through a reelection campaign in which I never heard a criticism of district activities, but did hear lots of praise." Grant represents the county commissioners in the district governing body.

"In meeting 1953 farmers' needs, the district fits into the Columbia County farm picture, just like Bloomsburg's famous fair," says Walt

Lewis, farm news radio broadcaster at Bloomsburg. Throughout the county, because of his radio and other activities, he is generally recognized as the individual who has contributed most to establishment, organization and success of the district.

"We never hear complaints about its work, or questioning of its value, but from all parts of the county we do get reports from farmers who are benefited. Before the district was organized I felt that it might duplicate services already being provided. I have always opposed duplication. Now I know there isn't any in the work that the district is doing in Columbia County. It is accepted as part of Columbia's way of life"—thus comments Ed Schuyler, Bloomsburg Morning Press editor and an experienced independent observer.

Pointing out that the "repairing of all the damage done to Columbia County farm land, through the years before farmers had a county-wide organized soil and water conservation program, is a tough, time consuming job," Raymond J. Campbell, Granger, agricultural extension leader and highly respected and suc-



Raymond J. Campbell, successful farmer and long-time extension leader, a key man in bringing about the organization of the district.



L. Oscar Gelnett, secretary-treasurer, National Farm Loan Association and Production Credit Association.

successful dairy farmer, emphasizes that "we can help every one of the thousand full-time farmers and perhaps five hundred part-time farmers, if they ask for assistance." This district director wishes that he could see the whole job done faster. But, he says, "I'm 63, and I doubt that more than half of it will be finished while I'm around."

"Of course that will be time well spent," he continues, "but too many farmers are too slow on the trigger in asking the district to help them get rid of their land headaches. Some of them say contour farming makes them turn around too often; others say it doesn't take as long. But, even should it take more time, that really doesn't matter because increased yields through contour farming more than pay the difference. When they fail to do something that pays them well for just doing it, I think farmers are 'slipping a link'."

Raymond Campbell really knows "how well it pays." He learned at his 125 Orangeville acres where he is a 100 percent district cooperator. He got started in conservation farming



Raymond Whitenight, vice chairman, is one of more than 50 war veterans who are increasing production and paying off their land debts as a result of help received through their district.



The district's most striking service to date has been to young farmers just making their starts on the land. Here is Winston Jarrard, who is reclaiming a farm run-down and about to be abandoned, proudly showing off some of his fine crop of corn.

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before the district was organized. He has seen his corn yields jump from 100 shelled bushels per acre where his dad said they were "upper bracket" producers because they harvested 50 shelled bushels per acre. In the same period the average increased yield per acre in Columbia County had been 10 bushels. Where his dad got 15 bushels of wheat per acre, Raymond raised 25 bushels per acre in 1952, despite "a lot of fly." Normally his yield is about 32 bushels per acre. His oats yield has soared from 40 to 70 bushels per acre; was down to 25 in 1952, because of unfavorable weather.

He has cut his corn acreage in half, yet is producing more than he can use, and is selling surplus. With a larger dairy than he ever had before, he is producing all the hay, silage and pasture that he needs from about the same acreage that he used for grass when he bought hay. Last year he had the best and biggest grass crop in his career. He says it will do even better. For the first time in his years of operating there, he was able to make hay in a gullied area, where he had never been able to move equipment. As one result of his straight-across-the boards increase in production, his expenditures for purchased feed have been cut in half, he notes when he makes out his annual income tax return.

Raymond Campbell knows, of course, that better seed varieties and getting full values out of his fertilizer, lime and manure, do account for some of these production gains, but he says: "Most of them, come from conservation farming methods, better use of my land and the building up of soil fertility, and soil moisture that grains and other crops need so much in dry years. Moisture pays big dividends then."

Though he fidgets over the "slow advance," he gets a thrill when long-time farmers quit holding back and come into the district program. There is a current speed-up in this breaking-down process. Campbell says the district's new small watershed approach is the principal cause. It is found in neighborhood projects in which long established farmers often cooperate more readily and more wholeheartedly than they do in county-wide events.

Ten small Columbia County watershed programs already have brought 114 more farmers, who have 10,800 acres of land, into the district



Paul Shultz, dynamic 26-year-old chairman. He and his two brothers farm 363 acres near Jerseytown.

program. More than 170 farms, about 16,000 acres, will be directly benefited as a result. Hundreds of others will be helped indirectly. Much larger gains are promised all over the county because there are opportunities for almost 100 more of these local developments in which neighbors can work together to get the conservation job done.

District directors are pleased because some Columbia County banks, at the suggestion of the district, are making conservation farming an important factor when they take mortgages or make loans to district cooperators who are purchasing farms or making improvements that will increase their production. "A conservation farmer is a better risk because the investment in his farm is better protected our bankers tell us," the directors say.

They note, too, that Columbia County farm machinery and supply dealers are beginning to use the same measuring stick. "If I were a farm machinery dealer," Director Campbell observes, "and knew that a sales prospect is farming the conservation way, I would go a lot farther, lean backwards, in helping him swing the deal, because my investment and his investment would be more secure."

The district soil and water conservation and good land use program did not come to Columbia County over night. Conservation farming practices were first brought to Columbia County by the Extension Service and its county agents through educational programs and on-farm demonstrations. The first district seed was planted in late 1930's when representatives of USDA's Soil Conservation Service, came to Columbia and Montour Counties, spoke at Grange and other farmer meetings, and cooperated in demonstration work. By 1940, acceptance of the idea had spread so far that a move to organize a district was started in each county. It was unsuccessful in both, but around the hard core of farmer and public opinion that had developed in Columbia, the successful 1949 effort was built.

When Columbia district was finally declared, almost everybody stopped to enjoy a breather. For several months there was dragging of feet; opponents got busy. Then three strong agricultural horsemen decided it was time to move. Joining forces with Raymond Campbell who



Walt Lewis, a real spearhead. A radio broadcaster with a big following, Lewis was a vo-ag teacher in Columbia County and later had a fling at the insurance business.

was "itching for action," came Walter Lewis, a farmer vo-ag teacher of 19 years' experience in the area, then and now broadcasting a daily farm radio program from station WHLM in Bloomsburg; Harry Everett, Columbia-Montour vo-ag supervisor; and Oscar Gelnett, who represented National Farm Loan Association and Union Production Credit Association activities in Columbia and Montour. This trio stiffened the pro-district backbone, rounded up county-wide support and put district organization effort back on the tracks.

Before they were through with the enthusiasm of the campaign that reached every part of the county, the team was augmented in the big push by radio stations WHLM and WCNR in Bloomsburg, the county's two daily newspapers, the Bloomsburg Morning Press and the Berwick Enterprise; weekly papers like the Benton

Argus and Millville Observer; Benton and Mifflinville GI farm training classes; Young Farmer Associations Chapters; Leo. A. Miller of Millville and other vo-ag teachers; local cooperators in agricultural programs like PMA, FHA, NFA and PCA; farm machinery and supply dealers; individual Grangers, Future Farmers, vo-ag classes and many other elements.

Final victory stemmed from a meeting at WHLM studios to which Walt Lewis invited representatives of all agricultural organizations in Columbia County, together with newspaper people and county commissioners. Before a gathering of 50 persons, Mark Witmer, chairman of the neighboring Northumberland County Soil Conservation District and a successful farmer and agricultural leader, told how the district program had transformed erosion-riddled Stone Valley and other Northumberland County areas into, productive paradises. He topped off his talk with an invitation to "come and see for yourselves" that was quickly accepted. What the visitors saw at Stone Valley and what they heard from its prosperous farmers and others, backed up everything that Witmer had told them. For the first time, many realized just how much Columbia County had been missing for years because it did not have a district. It was the knockout punch of the campaign.

Morning Press Editor Ed Schuyler was one of the converts there that day. This excellent newspaper had been rather on the fence; sometimes doubtful of the need for a district, and fearful of the possibility that a district might duplicate services already being performed for Columbia farmers. After the "look, see and hear" at Stone Valley, Ed went back to Bloomsburg and next day told Morning Press readers that a district would be good for the county. It helped a lot.

Schuyler likes to recall a little extra thing that impressed him at Stone Valley. It came when Farmer Earl Botdorf scooted up the grassy slopes in his car and told the visitors about his farm and what conservation farming had done for him. The speed and ease with which the car moved over contours and sod waterways convinced Schuyler that farmers have no difficulty in working land when they farm "on the level." Sometimes, Ed halfway hints that maybe Botdorf's spectacular arrival

was planned just that way. But really, Walt Lewis insists, it happened naturally. Earl wasn't putting on a show. As usual, he was simply in a hurry.

A few days after the visit to Stone Valley, the county commissioners received a list of agricultural leaders, from which it was suggested that they could make a good sound choice of five members for the district's governing board. Grant Miller, John Q. Timbrell and G. Clayton Welliver, the commissioners, named R. J. Campbell, Fishing Creek; Raymond Rarig, Numidia; Raymond Whitenight, Scott township, and Paul Shultz, Jerseytown, to serve with County Commissioner Welliver, of Bloomsburg.

These designations gave district representation and leadership in each major section of the county, and provided the sound judgment of solid, experienced farmers, Campbell and Rarig, to balance the enthusiasm of the comparatively young farmers, Shultz and Whitenight, representing vo-ag and GI groups, plus the broad business experience of Welliver. Ages ranged from the early twenties to the early sixties. To the surprise of Shultz, then 23, the other directors elected him chairman, a post that he has continued to hold for 3 years.

Profiting from the earlier let-down experience, the three horsemen immediately swung their whole campaign force behind the new district, started to push and also to round up recruits, primarily for the purpose of quickly acquainting farmers and the public with the work that a district does, and how its services are obtained.

Before they were through—and they haven't stopped yet—service clubs such as Lions, Kiwanis and Rotary; Millville's First National and other banks; Bloomsburg's State Teachers' College; Orangeville's Community Advertiser; Bloomsburg, Millville, Berwick and Catawissa High schools; Orangeville's Sportsmen's club, Mifflinville Mountaineers Club, and many other groups and individuals were helping enthusiastically. Jim Atherton, Mifflinville GI farm training instructor, insisted that all class members take advantage of district services.

Housenick Motor Company, Bloomsburg, presented a new terracer to the district when this organization was a year old, and later it was the first Columbia County organization to swing its help behind the country-wide conservation

program by becoming an affiliate member of the National Association of Soil Conservation Districts. Neil S. Harrison, Inc., of Bloomsburg, also has become an affiliate member of the national body.

The State of Pennsylvania joined hands with the district by providing the directors with the assistance of its Soil Conservation Commission, which helped them quickly and effectively to organize the program under provisions of the state law. Through memorandums of understanding, the commission also brought to the directors the help of USDA's Soil Conservation Service and the State Department of Forests and Waters, the State Game Commission, the State Department of Highways, and the State Fish Commission.

From the state the directors also received the helpful cooperation of the Department of Public Instruction with its vo-ag, FFA, adult and GI farm training programs.

The U. S. Department of Agriculture tuned in with its Production and Marketing and Farmer's Home Administrations. The National Farm Loan Association and its Union Production Credit Association swung into line with additional boosts.

Out of all this activity and encouragement, Columbia County Soil Conservation District—the twenty-third to be formed in Pennsylvania and one of its younger units—has become one of the outstanding and most progressive districts in 12 states ranging from West Virginia to Maine. Strong positive leadership, within and without the organization, has made it highly effective in helping old-time farmers as well as young fellows for whose benefit it was primarily created.

"It means a lot to us young farmers," says Winston Jarrard, World War II veteran, who spent 10 months fighting in the Pacific. Fifteen years ago, the farm he is buying near Freeville, was "one of the best around here." Then it became run-down and unproductive through a period of tenant- and share-farming and near abandonment. With help of the district, he has worked 30 acres back into top production, largely through use of his own labor and equipment. He's carrying his third lot of 15 beef cattle, 800 layers and 200 broilers and 30 head of hogs, including 5 brood sows, and is looking to the time when he can handle 35 head of beef, 2,000



G. Clayton Welliver, one of the original members of the board of directors and a sparkplug for modern farming in Columbia County.

chickens and 50 hogs. He's producing oats, corn and wheat, and grass for hay, silage and pasture, and soon will have 20 acres of pasture-hay. Where he first grew 100 bushels of ear corn per acre with "not a decent ear in the lot," he's harvesting 150 bushels of ears per acre of as good corn as Columbia produces, and expects it to do even better. In Columbia County the average yield per acre is 55 bushels.

The Jarrards' position is much better than it was in early after-war years when he worked in heavy industry. Recalling that he always did want to farm, Winston says: "Without the district's help I just wouldn't have a chance to make good here. Nine out of ten young farmers, GI's like me, who are buying their farms, are having the same good experience."

Jarrard is particularly grateful for help that he gets from the four SCS technicians who work with the district in solving his land and water problems. They are housed at the courthouse where the county commissioners provide office space and utility services for the district.

Raymond Rarig, a Numidia farmer for 15 years and now in his late thirties, points out that "farmers usually find that they can do a lot with their own labor and equipment in boosting production on their farms when they have the guidance of the kind of specialists that our district offers." In emphasizing that the district helps "every farmer who asks for

assistance," he comments that "something seems to have changed the minds of farmers who thought the district could not help them. Guess it's what they are seeing happen on the land of district cooperators." On his 65-acre poultry, hog and dairy farm, Rarig has a complete conservation plan established as a good example for other farmers, just as all the other farmer-directors do. In 1952 he harvested 1,000 bushels of ear corn off 5 acres. He's secretary of the district.

Paul Shultz, Keystone Farmer through Future Farmers of America achievements, farms 363 acres in three farms, with two brothers, Leo and Clark. Paul says the small watershed program and cooperation by PMA have been especially helpful in district work. Team work with PMA has spread the program over the entire county. In school, all the boys were vo-ag students, Paul having been in Walt Lewis' classes. Largely through the boys' influence, conservation farming was started at the 213-acre family farm before the boys' father died. The sons have extended it to 160 acres in two additional farms as rapidly as they were purchased.

G. Clayton Welliver, one of the original district directors and one of the county commissioners who declared the district, as previously noted, is proud of the results and knows that no mistake was made when they gave it approval. Now retired and living in Bloomsburg, Welliver



Raymond Rarig



Grant Miller represents the county commissioners on the district's board of directors.

saw a lot of Columbia County's fertile soil go down Fishing Creek during his 50 years of association with the Bloomsburg Water Works. He remembers how terrific was the toll of topsoil that runoff from storms took when the stream quickly soared 12 to 15 feet.

This loss can be measured accurately through what happened at the water works when he was in charge of filtration plant that purifies water drawn from Fishing Creek. Out of the stream's 53 million gallons' daily flow in the late twenties and early thirties, the water works drew 1¼ million gallons of water daily and put it through four 20 x 100-foot settling tanks for sedimentation. From these tanks in yearly cleanings were removed annually 15 railroad carloads of silt, mostly Columbia County topsoil. On this basis the stream was carrying 640 railroad carloads of silt in its total annual flow. It was a period in which soil conservation practices were just coming into use in the Fishing Creek watershed.

There has been a big change in the picture in the 19 years that have since passed, according

(Continued on page 187)

Women Find Careers on the Land



Dot Lassen entered dairy farming soon after she completed training to be a nurse. First she tried 60 rented acres, then the old 100-acre home farm at Cheshire, Conn. On the latter she has developed 60 acres of tillable land and soon will have 35 more, to support 30 Guernsey milkers and a retail bottled-milk trade. A strong land-use program based on the rehabilitation of worn-out and cropland acres for grass production has been the key to her success. Since 1946 her herd has been among the year's 5 top producers—twice at the top—in her local DHIA.

WOMEN who have sole responsibility for managing and operating farms take to conservation farming as readily as to the making of a new angel food cake.

When they turn to this way of farming to overcome land problems and put their acres on a profitable basis they have the patience to stay with it and make it work. They don't expect miracles overnight.

In this way many women have turned abandoned acres into lush productiveness. They have picked up and carried on interrupted operations. They have courageously assumed strange responsibilities on becoming widows. They have wiped out indebtedness and paid off farms, and supported and educated children.

Women's natural desire to create, and their inclination to seek out and follow suggested new patterns, have been important factors in their

success. Education in fields far remote from farming sometimes has become a strong asset. The absence of a rural background and the lack of skills in such highly specialized operations as dairying, fruit growing, seed production and cattle breeding, have not proved to be unsurmountable barriers.

Such women use their local soil conservation district, with its complete or basic conservation plan, just as they use a new recipe. By following the minutest detail, they learn through experience that a little variation—a pinch more, here, a bit less there—helps them get exactly the results they want. They give their "land" recipe a fair test.



Anne B. MacLaren, of Durham, Conn., was educated for a nursing career. She has built a 1-cow dairy enterprise up to a 70-head registered Jersey herd that has won her renown as a breeder. Without the help of a hired man, she has turned 105 run-down acres into lush grassland. Two daughters assist her. Fellow dairy farmers regard her as one of the best "cow men" in their part of the country. She is also town assessor.



Ruth Trost Welles graduated in piano at the New York Conservatory and voice at Carnegie Hall. In 5 years she has put lush grass on 76 acres of a croplless 100-acre farm near Coventry, Conn. With a herd of 27 milkers, her bill for purchased feed is less than half what it was when she had only 19 head. She is the widow of the grandson of Lincoln's Secretary of the Navy. She got her start in conservation farming by reading Bromfield's books.



Mary B. Carnes, pre-med and clinical laboratory technician, has a 40-acre week-end hideout near Glenwood, N. Y. Here she has a dairy of 30 Holstein-Friesians which produces 300,000 pounds of milk annually. A former leader in the Federation of Women's Clubs and the University Women's Association, she got her start by building 125 acres of worn-out, abandoned land to top production through good land use.

On these pages are pictured a few women farmers of the northeastern states. They range from 25 to 86 years old. They abandoned other careers, when the chips were down, and began to work with the land, with or without the help of a hired man, and without the guidance of a manager. As individual accomplishments they have—

Built more than 100 acres of birdsfoot trefoil seed production and are working toward 250 acres - - -

Developed a secluded 40-acre week end hideout into a thriving 125-acre dairy farm with 30 head of registered Holstein-Friesians producing 300,000 pounds of milk annually - - -

Turned a 165-acre dairy farm into a highly productive and efficient fruit-growing enterprise and won high county, state and national honors for agricultural and rural life leadership - - -

(Continued on page 191)



Genevieve Reddish, 25, of Delmar, Md., college trained to teach, has piloted her 300-acre farm to top production with the help of modern equipment backed up by a strong maintenance program.



Helen Eaton, left, formerly taught school. Louise Starr was a telephone operator. Now they operate as partners a 500-acre farm near Cassadaga, N. Y. With never a hired man, they have built a cup of birdsfoot trefoil seed into a seed-production business involving more than 100 acres—and are still expanding the enterprise.



At 86, Evalyn Gatchell, successful fruit grower at Alton, N. Y., is still doing all the farming that neighbors 26 years ago said no woman could do. After a teaching career, she first tried dairying and then turned to fruit, while reclaiming a run-down 165-acre family farm. She has won high county, state and national honors in Farm and Home Bureau and 4-H Association and rural life leadership.

Junior High School Goes to Camp

By J. W. BURDETTE



These boys learn first-hand about woodland improvement.

LEARNING about conservation can be fun. That's the way some 200 seventh grade boys and girls from Greenville Junior High found it on their recent 3-day visit to Camp Oolenoy.

Next to Table Rock State Park in the midst of a beautiful natural setting is a 20-acre tract of land which is becoming an outdoor laboratory for these students. The conservation camping trip is an integral part of the school program—an indication of the new direction being taken in public education in South Carolina.

Under the supervision and leadership of Elizabeth Ellison, home room teacher, 30 to 40

pupils visited the camp each week during last fall. Starting next spring, other groups are on the schedule, so that by June some 600 boys and girls will have visited the camp. At the present time, Greenville Junior High has the most extensive school camping program of any school in the state. Miss Ellison received special training for this work. She received her master's degree in school camping and outdoor education from New York University in 1951.

At her request, the supervisors of the Upper Savannah Soil Conservation District are arranging for Soil Conservation Service technicians to prepare a plan for the best use of each acre of land in the camp area. The plan provides for planting shrubs, grass and legumes used in conservation programs in the Piedmont section of South Carolina. It will also show how



J. W. Burdette, the author.

Note.—The author is head of educational relations, Soil Conservation Service, Spartanburg, S. C.



Cena McCurry, teacher, explains how soil is formed from weathering of rocks.

land is classified in the district soil and water conservation program.

Prior to this year, seventh grade classes made all-day trips to Paris Mountain State Park. Now that overnight facilities are available at Camp Oolenoy, each group spends two nights and three days in this fresh and exciting part of their school program.

A valuable feature is the preparation which goes on days ahead of the actual trip. The class is divided into committees, and assignments are made which enable each student to do a share of the work. Cooperation and group living provide a new and pleasant experience.

Home room teachers attended a 5-day pre-school conference on this phase of work last

August. They went to the field and saw at first-hand the many opportunities available for teaching science, conservation, biology, and related subjects. Consultants and resource people met with the teachers and explained the services available from their agencies. Teachers were quick to see the new possibilities for enriching their school program.

Soil Conservation district supervisors in Pickens County already have recognized the many teaching opportunities afforded and have requested permission for classes to visit the camp next spring.

Evaluation reports submitted by parents and students indicate that this part of schooling is being favorably received. Students are happy

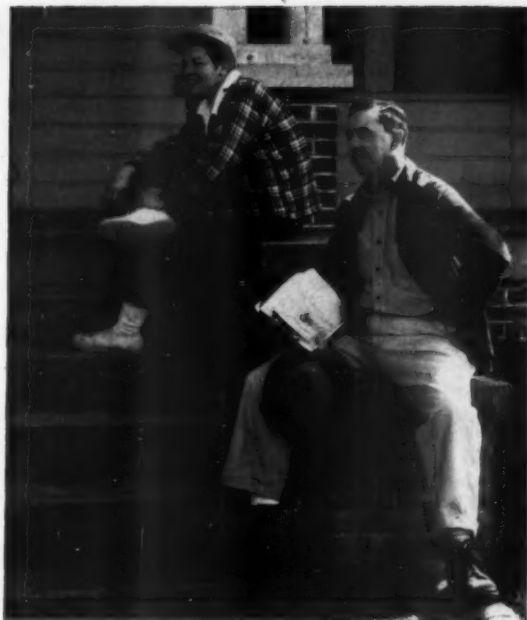
over the new approach to learning. They are discovering the extent of this country's resources and the destruction wrought by mismanagement and carelessness.

Examples of soil erosion, stream pollution, evidences of the destruction of food and cover for wildlife, and poor woodland management are to be found within hiking distance.

An important part of the work is to assist boys and girls in developing a sincere respect and appreciation of Nature and her laws. Many opportunities are available to the class to see or take part in the application of theory learned in the classroom.

Elizabeth Ellison, director of camping education, with F. G. Lindsay, of the Soil Conservation Service.

Seventh grade lassies try their skill at making blue-prints.



THREE REMARKABLE YEARS

(Continued from page 179)

to A. Roy Girton, present pumping engineer at the water works, where the same 4-settling tank system is still being used. Seventy-five percent *more* water is being drawn from the stream but there is 60 percent *less* silt in the settling tanks. The water works is pumping 2 million gallons of water from the stream every day, but there are only nine railroad carloads of silt to be removed from the settling tanks every year. On this new basis 213 railroad carloads of silt are now annually carried down the stream, as contrasted to 640 railroad carloads in Welliver's years at the waterworks.

"It means that conservation practices on Fishing Creek watershed farms are sharply reducing topsoil losses. Our district program is protecting, and will continue to guard what is left," Welliver proudly declares.

Harry Everett, Columbia-Montour vo-ag supervisor, who directs the work of 7 teachers with 240 pupils in 7 of the county schools, and 4 teachers with nearly 80 GI ag trainees in 3 Columbia schools, says: "Results from the district work already are better than we had expected for these early years. The district has reached into and become highly helpful in all parts of the county and eventually will blanket Columbia with its good influence. Its greatest single service so far is in assistance that young farmers have received. While county newspapers and radio stations, schools and others are doing a bang-up good job in education and information, many more farmers need to get acquainted with the help they can get from the district. The best agricultural program that can be organized is not too good for Columbia County. Our district is doing a very necessary job, helping us carry the second mile."

In the late fall of 1952, a powerful reinforcement for the educational effort was sought from a new source, when the district directors requested Ray M. Cole, county superintendent of Columbia schools, to consider conservation education for use in the county grade and high school curriculums. Later, through his request, the district supplied guides which he distributed to teachers with instructions for integration. This decision came as no surprise to those who had requested this action because farm-born



One of the many ponds built by Columbia district farmers. This one at Carl Ivy's place, has well sodded and well kept banks, and was developed from a wet corner in a pasture.

Cole is an alert and progressive educator, a former vo-ag teacher and a long-time soil and water conservation enthusiast. He heads a system in which there are 254 teachers with 7,000 pupils.

This development also points up the alert and progressive leadership in the Columbia Soil Conservation District governing body. Many such directors limit their conservation education activities to vo-ag boys in high school, but Columbia's directors think that it is more important to make the start in kindergarten, with the 5-year-olds of both sexes, and prepare them, through all grades, to absorb the solid material that comes to them in high school years. Boys and girls, systematically prepared groups between the ages of 5 and 10, will make better students and adult conservationists than those who start to get the material when they are 11, the district directors believe. By his action, the county's education chief seems to agree with their opinion.

L. Oscar Gelnett, one of the original three-horsemen who pushed the district organization through, has since been transferred to Farm Credit's operations in Northeastern Pennsylvania. He was happy over the progress of the Columbia Soil Conservation District when he looked back over its development the other day, and remarked:

"We people who are dealing in Farm Credit do give a lot of consideration to a loan, either on personal property or real estate, to the folks who are carrying out soil conservation practices which the district recommends. We find that these people not only become better farmers,

but our loans are based on long term values and we can put more dependence in these farmers to repay their loans as agreed. Our loans are based on income from the farm. The Columbia district certainly has been beneficial to the farmers in obtaining additional income."

Raymond Whitenight bought his farm when he was in the armed services and took over as quickly as he got home. He's one of the veterans who received GI farm training, and is a district director. "It took Columbia county farmers a long time to get started with a district, but now we're really rolling," he declares. He points to more than 50 veterans who are being assisted by the district; gets a kick out of finding among cooperators some farmers whom he had never expected to see there.

When you talk about Columbia Soil Conservation District with almost any informed person, the discussion usually swings to Raymond Campbell, who has been described by Paul Shultz, the young chairman, as a "63-years-old farmer who has all the get up and go that most people have when they are in their twenties, and who is right up on his toes making best use of all practices that 1953 farming calls for." Others have referred to him as the rock to which

the district is anchored and from which it spreads its good services all over the county.

Looking over the situation the other day, when the district was opening its fourth year of operations, Campbell said:

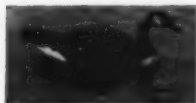
"Without the young farmers—GI's and vo-ag'ers—and the wholehearted teamwork of so many fine people and helpful organizations, we just wouldn't be making the showing that is piling up. Without the district, most of the young farmers, particularly the GI's, wouldn't be paying for the farms they are buying through increased earning power there. And don't forget, the district is also helping a lot of farmers who have been on the land nearly as long as I have, maybe longer. We need to bring more in by stepping up our information and educational work, because Columbia County Soil Conservation is a good deal all over the county. Almost everybody who knows about it, is for it. Teamwork is making it succeed."

FINDING THE NATURAL GROUPS.—Elmer Miller, farm planner for the Freeborn (Minn.) Soil Conservation District has a new method of locating neighbor groups. Elmer clips news stories of birthday parties and keeps them on file. Thus, he has a good idea of the people to work with.



Three years ago this land was in second-growth pine. G. Raymond Whitenight cleared, plowed, limed, and seeded it to alfalfa, ladino and smooth brome. It was also fertilized at seeding, and top dressed after the first year. First cutting of '52 hay yielded $1\frac{1}{2}$ tons per acre. The second crop, glimpsed above, was pastured in September. First-year production paid for clearing, treatment, seed, and all other work

Wild Geese Help Wheat Yields



By I. T. QUINN

FARMERS often complain that geese are playing havoc with their wheat and it is natural that they should become alarmed when great flocks of Canada honkers descend upon their fields and graze day after day. A revealing experience has come to light which shows that the feeding of geese in the winter months greatly helps the wheat.

Three fields of winter wheat were planted on the Hog Island Waterfowl Refuge in Surry County, Virginia, for the purpose of attracting geese. Result was that about 2,000 Canada geese stayed on the property throughout the winter, although in the past geese seldom visited the area. These three fields consisted of about 20 acres each. Character of the soil was pretty much the same and the same treatment and commercial fertilization were used on all three fields.

The flock of geese used one of these fields mainly for their feeding, a few hundred of them used another field to some extent, and none of the geese fed in the third field. When the weather warmed in the early spring, it was easy to see that the wheat in the field which was most heavily grazed got off to the best start.

The harvest told an even more vivid story. When the crop was harvested, the field on which the 2,000 geese fed regularly made an average yield of 33 bushels to the acre. The field where the lesser number of geese fed brought a crop averaging 25 bushels to the acre. The field which the geese neglected entirely brought only 18 bushels to the acre.

While a great many of the river-bottom farmers have realized that the grazing of geese

during the winter helped their wheat, this experience at Hog Island provides concrete proof. It also indicates to what extent the geese were beneficial. The yield of 33 bushels to the acre on one field and only 18 on another, can be attributed directly to the presence of the geese.

Geese graze on the blades of wheat very much as cattle graze on grass, with the root stocks little affected. The droppings of thousand of geese day after day added substantially to the fertility of the soil and the benefits derived from the presence of the geese showed up clearly in the difference in yield at harvest time.

While engineering work at Hog Island is leading to greatly increased supplies of duck foods, not enough has yet been done in the production of aquatics to show a great deal of difference in the number of ducks. But at least 2,000 Canada geese used the area last winter, attracted by the plantings of wheat for their benefit. Greater areas will be planted in wheat this year and it is a virtual certainty that even more geese will find refuge there next winter.

It was quite remarkable that on the fields at Hog Island where some 2,000 geese fed regularly, there was one of the best crops of wheat in Surry County.

POND GUARDS VILLAGE.—The inhabitants of Lowell, a small village in Oneida County, N. Y., have solved a community problem by getting together with the Oneida County SCD and building a farm pond that protects the homes of its 21 families. They chipped in to pay most of the \$300 cost. Farmer Lawrence Grimes started the project rolling, soon after a small fire had threatened the village, by offering to donate a site on his farm, at the edge of the community. It was quickly accessible to fire fighting apparatus.

Citizens, who had been unresponsive to a similar opportunity a few years ago, got together this time and hired an engineering company engaged in road construction to do the excavating, spread the spoil and cover it with topsoil.

Now the community is guarded by a pond 80 feet square and 6 feet deep. It holds enough water to keep two pumpers going for at least 2 hours, which is sufficient for any need likely to arise. The water comes from high water table and springs.

Note.—This article by the executive director of the Virginia Commission of Game and Inland Fisheries is reprinted by permission from *Virginia Wildlife*.

MINNESOTA FARMS FROM THE AIR

By RAY BROWN

IN Minnesota the soil conservation air tour has been useful as a means of public education. Based on encouraging reports from Ohio, tours were undertaken at 5 points during 1951. Eleven districts were represented and 684 persons were carried.

Last year 10 more tours were held in southeastern and central parts of the State. Nineteen districts participated in these and 1,444 fare-paying persons were flown. In addition, 66 newsmen and agricultural officials went along as guests.

The areas involved ranged from steep, gullied hills where contour stripping, terraces and drainage structures are common, to flat, sandy-loan plains which feature wind strippings and tree planting.

Success of the tours was made possible by cooperation of soil conservation districts, the University of Minnesota Extension Service, the Minnesota airport operators, the Flying Farmers Association and the State Aeronautics Department. Tours were of about 30 minutes length. Each tour covered about 50 miles of route laid out to show problems and practices involved. The cost to each passenger ran \$3 to \$3.50.

After flights, most passengers were found to have been more forcibly impressed by the large areas of land in need of protective treatment than by the relatively few farms on which good conservation practices were in effect.

We believe that the soil conservation air tour is one of the most effective means of "selling" conservation, not only to farmers but to the press and many other interested segments of the public. Evidence of this is the fact that nearly every district holding such a tour in 1951 and 1952 plans to repeat in 1953. In addition, several Minnesota districts plan to conduct their first tour this year.

Note.—The author is aviation representative, Department of Aeronautics, State of Minnesota, Holman Field, St. Paul 1, Minn.

IOWA WOMEN AND CONSERVATION.—Farm wives in Marshall County (Iowa) Soil Conservation District are getting a better understanding of the benefits of soil conservation through a joint program undertaken by the Soil Conservation Service, Marshall County district, and the Marshall County extension service. Mrs. Greta Bowers, county extension home economist, helped to plan the program.

The idea was first presented during a county-wide meeting of 18 township women chairmen. These chairmen took the proposed program back to their respective townships, and at a later meeting of the township leaders it was decided to carry out the project in each township during October.

Each chairman was given a list of two or more farms in her area which had conservation practices. It was her responsibility to arrange for a meeting and tour of one of these farms.

At each of the meetings, the importance of conservation and its benefits were discussed and suggestions



H. Howard Oak, technician, explains practices on farm of Corwin Springer, district chairman.

were given on how women can influence a greater participation in the conservation of soil. A series of slides picturing local erosion problems and conservation practices were shown. Local slides were used because the women were familiar with the conditions shown. The organization and purpose of the Marshall County Soil Conservation District were discussed, emphasizing that it is "your district," not a State or Federal organization. Last, a tour of the farm was made to observe conservation practices. The farmer did most of the talking on these field trips. A majority of the farm tours were made with a wagon hitched to a tractor.

Success of the new program seems assured by the enthusiasm that has been shown. Women have a natural interest in the welfare of future generations and will work willingly to improve conditions for themselves and their families.

—H. HOWARD OAK

TEACHERS SEE WATERSHED

By G. STERLING OTIS

STONY Brook watershed in New Jersey's Freehold Soil Conservation District, has become a training ground during the past 6 years for more than 250 teachers who study soils, land use capabilities and soil conservation at the New Jersey State Teachers' College Conservation Workshop at Trenton.

Two 1-day tours of watershed farms have been voted the best in the annual 14-day course in which all conservation groups in the state participate.

The work has been directed by Dr. Victor L. Crowell for 5 years. Stony Brook watershed is ideal for studying soil losses from erosion, and the benefits that come out of soil conservation practices. Crowell arranges with Soil Conservation Service technicians for two 1-day tours in July.

In 1952, the party, traveling by bus, met in the morning at the Charles Cox farm, Penns Neck, where contour strip cropping, with emphasis on corn crops, was studied. A little later

Note:—The author is a Soil Conservation Service technician working in Mercer County, N. J., with the Freehold Soil Conservation District.

a stop was made at Princeton University's crew house on Lake Carnegie, where soil losses from the watershed, represented by siltation, were shown in detail. Most of the class members carried their lunches and stopped to eat at a park near Pennington.

After lunch, they studied a complete conservation farm plan, fully installed at the Curlis Hart 100-acre dairy farm. Here they learned about terraces, crop rotations, and farm pond management.

At a stop near Hopewell the interest centered on the farm woodlot, where a profile revealed the different layers of forest litter.

The final stop put the class down at the VanZant family farm, at Blawenburg, where a state-wide, 1-day "face-lifting" attracted 8,000 spectators 3 years ago. The teachers "walked out" the complete plan, heard the story of what was done and observed the results of the effort. Here they also had an opportunity to contour lines with hand levels and terrace lines with tripod levels.

When the teachers come out of the workshop with credits in conservation, they possess a better knowledge of how and what to teach. They know how and where to get technical instructors to lecture in class work and help plan and conduct farm tours.

WOMEN FIND CAREERS

(Continued from page 182)

Transformed a 300-acre clay flats area into a farm that annually markets 2,400 bushels of grain and 1,900 bushels of soybeans, plus hay, dairy, poultry and meat products - - - Become widely recognized in dairy cattle breeding - - -

Restored 100 cropland acres, idle through many years, to a grassland dairy operation that has won high state green-pastures contest honors.

They have done all this like other farmers, by working in the fields and barns and with motorized equipment, and by doing such jobs as being midwife to dairy cows, climbing to the tops of silos to adjust gear when it got out of kilter, using dynamite in clearing land, saving 150 apple trees by bridge grafting in orchards, as well as the everyday jobs that are

common in agriculture. All are cooperators with their local soil conservation districts. Before farming, they had made starts on careers in teaching, nursing, telephone operating, premed and clinical laboratory techniques, and the professional concert stage.

OLIVE SITUATION SAVED.—It would be hard to find a happier farm couple than the Joe Cooks of California's Corning Soil Conservation District.

Up to last spring, Joe had three acres of wet land smack in the middle of an olive orchard. Once he got



Mr. and Mrs. Joe Cook smilingly review results of their farm conservation plan with George Edmundsen of the Soil Conservation Service.

a neighbor to haul his tractor out of a wet hole. When he planted a piece of the waterlogged land to olives, the trees soon drowned out. Joe wasn't pleased at the way things were going.

But all that has changed. There's not a lick of wet land left. Last summer he had 200 new olive trees, plus 100 replacements, growing on the land he couldn't have crossed with a plow before.

Through his district he obtained help from Soil Conservation Service technicians. They made several borings on Joe's land and located two springs at the top of the slope which were causing the trouble. The flow wasn't heavy enough to force a channel through the orchard, but enough water came to the surface to keep the top of the ground wet month in and month out.

By the end of April, Joe had installed two 6-inch tile drains—one 900 feet long, the other 200. He had to do much of the ditching by hand because the soils were too wet for a ditcher.

The wet land dried up in a matter of days and was soon ready for planting. Although the springs run fairly steady the year around, Joe doesn't expect any

more trouble from them. The flow is so good from one of them that Joe plans to furrow-irrigate 5 acres down below. The well that has been furnishing water for this area will go on a standby basis. Two other wells will irrigate higher ground.

—HERB BODDY

SIGNATURE SONG.—The American Song of the Soil has become a sort of theme song for soil conservation programs over Radio Station WRHI, Rock Hill, S. C., following its first presentation over the station last fall by three senior students of Winthrop College.

The students, shown below, were Miss JoAnne Holladay, of Brunson, S. C., and Miss Nancy Mackie of Granite Falls, N. C., Miss Mary Lou Hiott at the piano. Bill Beatty, of the radio station, liked the song so well that he had a recording made for future use.

Vernon Grant, a supervisor and chairman of the education committee of the Catawba Soil Conservation District, interviews a district cooperator each week over Station WRHI, and the American Song of the Soil is used in connection with these broadcasts.

The lyrics for the song were written in 1941 by Walter A. Groom, of Grand Junction, Colo., a conservation farmer and former president of the Colorado Association of Soil Conservation Districts. The music was written by composer Del Yandon, of Station KXLY, Spokane, Wash. It was first presented on the air by Clyde and Pal, hillbilly singers, over KXLY in 1950.

